IN THE SPECIFICATION

Please replace paragraphs [0007] and [0008] with the following amended paragraphs:

[0007] Figure 1 is a cross-sectional side view of a gas turbine engine including a pulse detonation system in a first mode of engine operation; ~~and~~

[0008] Figure 2 is an enlarged partial cross-sectional side view the engine shown in Figure 1 in a second mode of engine operation~~.~~ ;

Please add the following paragraphs after amended paragraph [0008]:

Figure 3 is a cross sectional view of an exemplary embodiment of the deflagration chamber taken along lines 3-3 shown in Figure 1;

Figure 4 is a cross sectional view of an alternative embodiment of the deflagration chambers taken along lines 3-3 shown in Figure 1; and

Figure 5 is a detailed view of the exemplary two-stage pulse detonation system shown in area A of Figure 1.

Please add the following paragraphs after paragraph [0019]:

Figure 3 is a cross sectional view of an exemplary embodiment of deflagration chamber 100 taken along lines 3-3 shown in Figure 1. The cross-sectional view represents a view taken from core engine 30 (shown in Figure 1) towards exhaust nozzle 50. Centerbody 56 extends aftward from core engine 30 and is substantially concentrically aligned with respect to nozzle 50 along engine centerline 14. Centerbody 56 is contoured and has a variable width 66 measured axially along centerbody 56. Deflagration chamber 100 is contoured and is positioned radially outwardly from centerbody 56 in flow communication with core engine 30. In the exemplary embodiment, deflagration chamber 100 is annular and extends circumferentially around centerbody 56 within engine nozzle 50.

Figure 4 is a cross sectional view of an alternative embodiment of the deflagration chambers taken along lines 3-3 shown in Figure 1. The cross-sectional view represents a view taken from core engine 30 (shown in Figure 1) towards exhaust nozzle 50. Centerbody 56 extends aftward from core engine 30 and is concentrically aligned with respect to nozzle 50 and extends aftward along engine centerline 14. Centerbody 56 is contoured and has a variable width 66 measured axially along centerbody 56. In this embodiment, deflagration chamber 100 is non-annular and engine 10 includes a plurality of deflagration chambers 100 extending axi-symmetrically and circumferentially around centerbody 56 within engine nozzle 50. Deflagration chamber 100 is coupled in flow communication with the fuel source (not shown) and the air source (not shown) used for atomization.

Figure 5 is a detailed view of the exemplary two-stage pulse detonation system shown in area A of Figure 1. Detonation chamber 102 is positioned at deflagration chamber downstream end 106 in flow communication with deflagration chamber 100, such that flow exiting deflagration chamber 100 is discharged through detonation chamber 102. More specifically, deflagration chamber 100 includes a vaneless radial nozzle 500 that accelerates and directs flow from chamber 100 into detonation chamber 102. In the augmented or reheat mode of engine operation, flap 110 is translated to second position 114, or the stowed position, and detonation chamber 102 is returned to flow communication with flowpath 54, which includes combustion gases discharged from core engine 30 and airflow exiting bypass duct 42. Fuel is supplied to deflagration chamber 100 such that chamber 100 is operated in a fuel-rich mode of operation. Flow exiting deflagration chamber 100 enters detonation chamber 102 through vaneless radial nozzle 500, which based on inlet, outlet, and throat dimensions, and upstream and downstream pressures, operates above the critical pressure ratio, and combustion is initiated within detonation chamber 102. Because centerbody 56 is translated to second position 82 during the reheat mode of engine operation, the pressure ratio across the vaneless radial nozzle is increased. When this pressure ratio reaches the critical value, detonation occurs within detonation chamber 102. The resulting detonation shock pattern results in the temporary interruption of flow into chamber 102, the discharge of detonation products aftwards, and the initiation of a fresh charge of deflagration products

through the radial nozzle. The cycle is repeated at a high frequency during operation in the augmented mode.